



March 10, 2016

Mr. James Hitzeroth
Environmental Manager
Republic Services, Inc.
26W580 Schick Road
Hanover Park, Illinois 60103

**Subject: Zion Surface Emissions Monitoring Report - First Quarter 2016
Zion Landfill Site 1 (Phases A and B) and Old Site 2
Zion, Illinois
CEC Project 160-105**

Dear Mr. Hitzeroth:

Civil & Environmental Consultants, Inc. (CEC) is pleased to present the information pertaining to the First Quarter 2016 surface emissions monitoring (SEM) conducted at the Zion Site 1 Phase A and B and Old Site 2 Landfill on February 19, 2016. The monitoring event was conducted in accordance with (1) regulations set forth in the New Source Performance Standard (NSPS), 40 CFR 60.755 (c) and (d); and (2) 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency.

A MicroFID I/S flame ionization detector was used to perform the emissions monitoring. The FID was calibrated prior to use, meeting Method 21 compliance requirements. Calibration logs were completed by the field technician performing the work, and are included in Attachment A.

The SEM was started by the CEC technician at 10:00 AM and was concluded at 2:30 PM. The high temperature for the location was 60 degrees Fahrenheit. There were no readings greater than 500 parts per million above background measurements detected during this monitoring event.

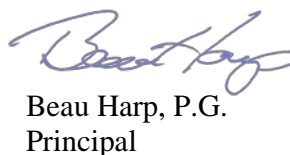
If you have questions or need clarifications, please call Gregory Komperda at (630) 432-0999.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Gregory Komperda
Field Service Manager



Beau Harp, P.G.
Principal

Attachment A: First Quarter 2016 SEM Summary

P:\2016\160-105\Final Documents\SEM 1Q16\1-160-105 Zion 1st Quarter 2016 SEM Report.docx



FIELD SERVICES

555 Butterfield Road
Lombard, IL 60148
Ph: (630) 963-6026
Fax: (630) 963-6027

DAILY FIELD REPORT

Date: Friday, February 19, 2016

Start Time: 8:00am

End Time: 3:00pm

Site: Zion

Site Location: Zion IL

H&S/Tailgate Meeting:

Project Number: 160-105

Project Task: 1

Prepared by: Gregory Komperda

Project Manager: Gregory Komperda

CEC Personnel: Riche Hernandez

Vehicle(s): 54

CEC Subcontractor:

Personnel:

Client: Republic

Client Personnel: Jim Hitzeroth

Weather Sky: Clear Temp: 55 °F

Wind: 10 SW MPH

Precipitation: 0 inches

Work Summary: CEC technician Riche Hernandez visited Zion Landfill on the 19th of February 2016 to perform surface emission scans on the Republic section Old site 2, Site 1A and Site 1B. Scans were conducted after calibration of the Micro Fid, no exceedances were recorded.
Barometric pressure = 29.55 in, Clear skies, 55 Deg F, 68% humidity.

Hour Summary: 7.0 Total

Overtime

Lunch:

Equipment Used:

- | | |
|----------|----------|
| 1) _____ | 5) _____ |
| 2) _____ | 6) _____ |
| 3) _____ | 7) _____ |
| 4) _____ | 8) _____ |

Pipe Used: _____

Approved by: _____

Date: _____

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: Zion Landfill DATE: 2/19/2016

EXPIRATION DATE (3 MOS.): 5/19/2016

TIME: 8:00am

INSTRUMENT MAKE: PHOTO VAC MODEL: Micro FID S/N: C2WD307

MEASUREMENT #1:

Meter Reading for Zero Air: 0.0 ppm (1)

Meter Reading for Calibration Gas: 499.0 ppm (2)

MEASUREMENT #2:

Meter Reading for Zero Air: 0.0 ppm (3)

Meter Reading for Calibration Gas: 503.0 ppm (4)

MEASUREMENT #3:

Meter Reading for Zero Air: 0.0 ppm (5)

Meter Reading for Calibration Gas: 501.0 ppm (6)

CALCULATE PRECISION:

$$\frac{[500 - (2)] + [500 - (4)] + [500 - (6)]}{3} \times \frac{1}{500} \times \frac{100}{1}$$
$$= \underline{0.33} \% \text{ (must be less than 10\%)}$$

PERFORMED BY: Riche Hernandez

RESPONSE TIME TEST RECORD

LANDFILL NAME: Zion Landfill

DATE: 2/19/2016

TIME: 8:00am

INSTRUMENT MAKE: PHOTO VAC MODEL: Micro FID S/N: C2WD307

MEASUREMENT #1:

Stabilized Reading Using Calibration Gas: 508.0 ppm

90% of the Stabilized Reading: 457.2 ppm

Time to Reach 90% of Stabilized reading
After switching from Zero Air to
Calibration Gas 4 seconds (1)

MEASUREMENT #2:

Stabilized Reading Using Calibration Gas: 506.0 ppm

90% of the Stabilized Reading: 455.4 ppm

Time to Reach 90% of Stabilized Reading
After switching from Zero Air to
Calibration Gas 6 seconds (2)

MEASUREMENT #3:

Stabilized Reading Using Calibration Gas: 504.0 ppm

90% of the Stabilized Reading: 453.6 ppm

Time to Reach 90% of Stabilized Reading
After switching from Zero Air to
Calibration Gas 5 seconds (3)

CALCULATE RESPONSE TIME:

$$\frac{(1) + (2) + (3)}{3}$$

= 5.0 SECONDS (MUST BE LESS THAN 30 SECONDS)

PERFORMED BY: Riche Hernandez

**CALIBRATION PROCEDURE AND BACKGROUND
DETERMINATION REPORT**

LANDFILL NAME: Zion Landfill

INSTRUMENT MAKE: PHOTO VAC MODEL: Micro FID S/N: C2WD307

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.
Stable reading = 500.0 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 0.0 ppm (1)
2. Downwind Reading (highest in 30 seconds): 0.0 ppm (2)

Calculate Background Value:

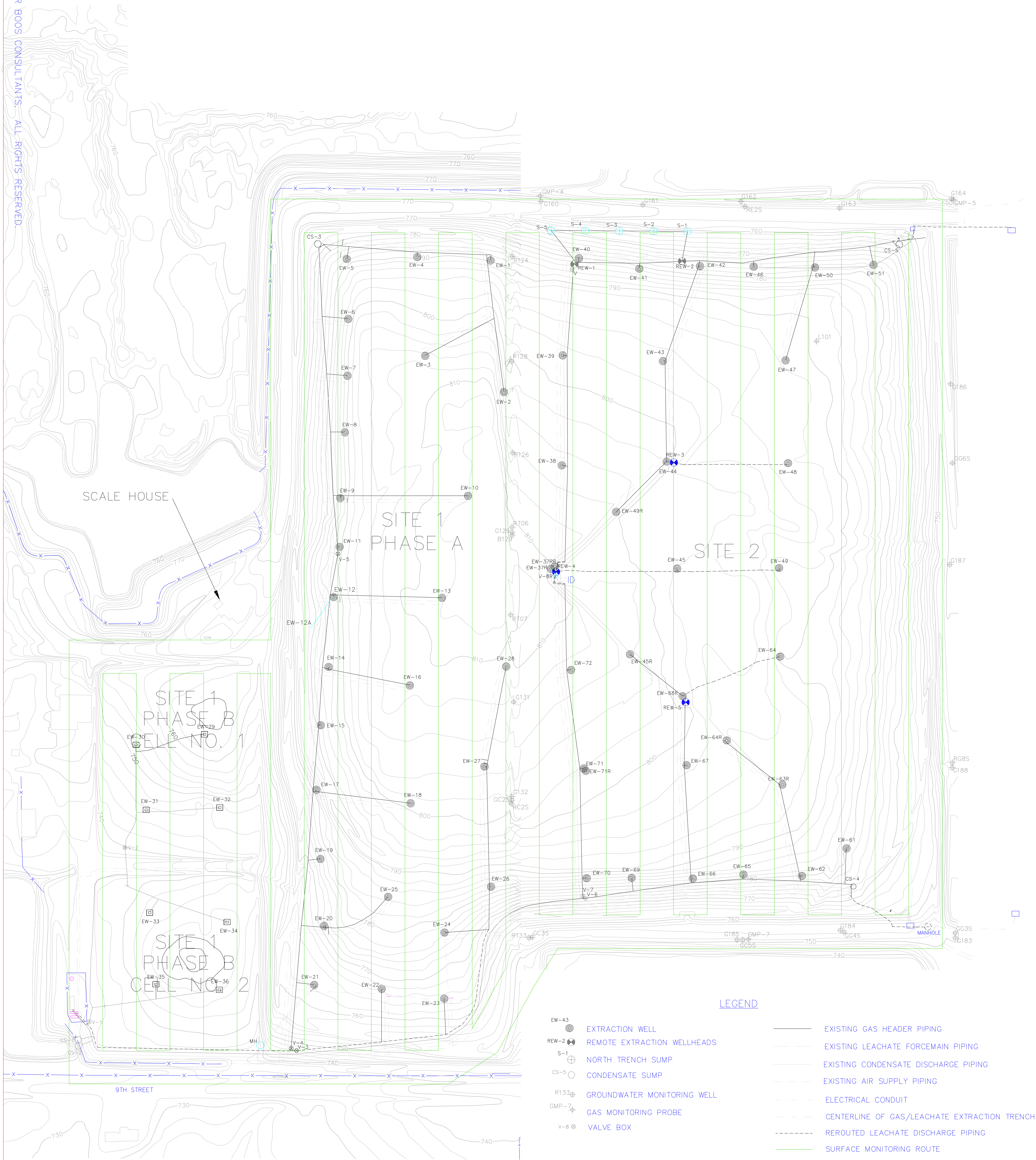
$$\frac{(1) + (2)}{2}$$

Background = 0.0 ppm

PERFORMED BY: Riche Hernandez TIME: 10:35 AM

DATE: 2/19/2016

COPYRIGHT © 2008 WEAVER BOOS CONSULTANTS. ALL RIGHTS RESERVED.



DRAWN BY: CJB/CPV DATE: 01/02/2008
DESIGNED BY: AAH PROJ. No.: 0120-37
APPROVED BY: AAH FILE No.: ZN000206.DWG

QUARTERLY SURFACE EMISSIONS SCAN
VEOLIA ZION LANDFILL
ZION, ILLINOIS

Landmark Environmental Systems
1813 N. MILL STREET, SUITE A NAPERVILLE, ILLINOIS 60563
(630) 717-4848 FAX (630) 717-4850
CHICAGO, IL SPRINGFIELD, IL GRIFFITH, IN FORTH WORTH, TX SOUTH BEND, IN
(888)645-5240 (877)645-5242 (888)645-5239 (866)384-9770 (877)645-3290